



**Re: sil-vi-cul-ture (noun) The care and cultivation of forest trees ; forestry .  
[Latin silva, forest + culture.] sil vi-cul tur-al adj . ...**

**David Powers** to: Scott Downey

07/05/2011 04:10 PM

Alan Henning, Andrea LaTier, Elizabeth Allen, Erin Halbert, Harold  
Cc: Rogers, Kay Morrison, Linda Liu, Richard Kauffman, Schulze.Chad,  
Sheila Fleming

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History: This message has been forwarded.

Scott - timber growth and yield rates with and without herbicide use vary by site, species mix, silvicultural practices and the timeframe used for comparison.

The level and method of needed weed and pest control on forest lands is closely tied to the silvicultural approach used. The Forest Service and BLM haven't employed the widespread use of herbicides on federal forest lands for timber production for ~ the last two decades. This is due in part to lawsuits and in part to movement away from larger clear cuts\* and increased reliance on natural regeneration. Conversely, a large percentage of private forest lands were/are planted as homogenous Douglas fir, even-aged plantations which are clear-cut and then replanted in Douglas fir and clear-cut again in 35 to 50 years...and planted again and clear-cut again. This silvicultural approach, used widely on private lands and up through the early 1980's used on a portion of federal lands, went hand in hand with herbicide use. Clear-cutting also coincided with the post World War 2 housing boom, advances in chemical technology, and the shift to a timber production focus in the courses that were accredited in Universities with forestry programs.

\* Douglas fir is shade intolerant (needs full sunlight to regenerate) so after a clear-cut the harvested areas are sprayed to control competing broadleaf vegetation so the fir seedlings can grow unimpeded. Monoculture Doug fir stands are also susceptible to the spread of disease and pests (and fires). Some private companies like Starker grow multiple species and will harvest targeted species based on the differential wood prices for those species. Hemlock and cedar can grow with far less sunlight than Doug fir so can be regenerated without clear-cutting. Mixed species, uneven aged stands are generally more resistant to the spread of pests and disease further limiting the need for chemical use.

Another driver for the existing silvicultural system approach on private forest lands is the current condition of private forest lands (lots on younger, monoculture plantations) and the quick turnover in forest land ownership (and associated need to cut quickly to pay off land acquisition costs). Under this scenario clearcutting, spraying, replanting, fertilizing and spraying once or twice again gives you the greatest "fiber" yield in the shortest timeframe. However, the mean annual increment of fiber added by a growing tree continues to increase well beyond the standard 35 to 50 year clear-cut rotation. In regular English...an 80 to 100+ year old tree adds more wood each year to its trunk than a seedling, a sapling, or 35 to 50 year old tree adds. So in practice letting trees grow substantially longer than 50 years would produce substantially higher fiber/timber yield. An acre of old growth can have more than twice the volume of wood as a fully stocked 50 year old plantation.

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Scott Downey very interesting: Eugene district BLM officials ar...

07/05/2011 12:57:44 PM

From: Scott Downey/R10/USEPA/US

To: Linda Liu/R10/USEPA/US@EPA, Schulze.Chad@epamail.epa.gov, Erin Halbert/R10/USEPA/US@EPA, Sheila Fleming/R10/USEPA/US@EPA, Elizabeth Allen/R10/USEPA/US@EPA, Andrea LaTier/R10/USEPA/US@EPA, David Powers/R10/USEPA/US@EPA, Harold Rogers/R10/USEPA/US@EPA, Alan Henning/R10/USEPA/US@EPA, Kay Morrison/DC/USEPA/US@EPA, Richard Kauffman/R10/USEPA/US@EPA  
Date: 07/05/2011 12:57 PM  
Subject: BLM rethinks herbicide use

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very interesting:

Eugene district BLM officials are inviting public comment on the agency's proposal to use four herbicides to kill weeds along roadsides and in rights of way, but not on recently harvested timberlands or to improve livestock forage areas.

The BLM stopped using herbicides in Oregon in 1984 after a court injunction in response to a lawsuit filed by the Eugene nonprofit conservation group Northwest Coalition for Alternatives to Pesticides.

So I wonder how this has affected timber yields. Dave?

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----- Forwarded by Scott Downey/R10/USEPA/US on 07/05/2011 12:47 PM -----

From: Dale Mitchel <dmitchel@oda.state.or.us>  
To: pesticide-all pesticide-all <pesticide-all@oda.state.or.us>  
Cc: Scott Downey/R10/USEPA/US@EPA, Linda Liu/R10/USEPA/US@EPA, Chad Schulze/R10/USEPA/US@EPA, Jae P DOUGLAS <Jae.P.DOUGLAS@state.or.us>, KNOTTS Bradley KNOTTS\_Bradley\_A <Bradley.A.Knotts@state.or.us>, ALLEN Marganne <marganne.allen@state.or.us>, Gail Shibley <Gail.R.Shibley@state.or.us>  
Date: 07/05/2011 11:56 AM  
Subject: Fwd: US Forest Service, Article Eugene, Lane County

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FYI

Begin forwarded message:

**Subject: article**

<http://www.registerguard.com/web/newslocalnews/26474299-41/herbicides-blm-weeds-eugene-district.html.csp>